MCDP 5

Planning

U.S. Marine Corps

PCN 142 000004 00

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
21 JUL 1997		**00-00-1997 to 00-00-1997**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Planning	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Headquarters United States Marine Corps,Washington,DC,20380-1775**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**105**	

DEPARTMENT OF THE NAVY
Headquarters United States Marine Corps
Washington, D.C. 20380-1775

21 July 1997

FOREWORD

This publication describes the theory and philosophy of military planning as practiced by the U.S. Marine Corps. The intent is to describe how we can prepare effectively for future action when the future is uncertain and unpredictable. In so doing, this publication provides all Marines a conceptual framework for planning in peace, in crisis, or in war. This approach to planning is based on our common understanding of the nature of war and on our warfighting philosophy of maneuver warfare as described in Marine Corps Doctrinal Publication (MCDP) 1, *Warfighting*.

Our doctrine for planning establishes planning as an essential component of the broader field of command and control. The object of both is to recognize what needs to be done in any given situation and see to it that appropriate actions are taken. This publication should be read in conjunction with MCDP 6, *Command and Control*. The concepts described therein also generally apply to planning.

The approach to planning presented herein applies across the full spectrum of military actions, ranging from humanitarian assistance on one extreme to war on the other. It applies also to planning for institutional activities such as acquisition, education, and manning. However, the focus here is on operation planning, especially at the tactical level.

As used in this publication, the term "planner" refers not only to members of a designated planning staff but to any person involved in laying out actions in advance. This includes commanders. One of the themes of this publication is that planning is a fundamental responsibility of command. *Commanders must be centrally involved in planning*.

This publication establishes the authority for the subsequent development of planning doctrine, education, training, procedures, and organization. It provides no specific techniques or procedures for planning; rather, it provides broad guidance, that requires judgment in application. Other publications in the planning series will address specific techniques and procedures for various planning activities.

Chapter 1 is based upon the assumption that in order to develop an effective planning philosophy, we must first develop a realistic appreciation for the nature of the process and an understanding of its related requirements. Based on this understanding, chapter 2 discusses theories about planning and plans. Building on the conclusions of the preceding chapters, chapter 3 describes the Marine Corps' approach to planning.

The doctrine discussed herein applies equally to small-unit leaders and senior commanders. This publication is meant to guide Marines at all levels of command and staff in both the operating forces and the supporting establishment.

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Commandant of the Marine Corps

DISTRIBUTION: 142 000004 00

Planning

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Chapter 1

The Nature of Planning

"Nothing succeeds in war except in consequence of a well prepared plan."[1]

—Napoleon Bonaparte

"I engage, and after that I see what to do."[2]

—Napoleon Bonaparte

To plan effectively, we must first appreciate the fundamental nature of planning and plans. We must understand the purpose, environment, and characteristics of the process as well as the object and traits of its product. This understanding will become the basis for developing a theory and practical philosophy of planning.

PLANNING AND PLANS DEFINED

Planning is the art and science of envisioning a desired future and laying out effective ways of bringing it about.[3] It is a preparation process. Here we draw an important distinction between a process (a dynamic system of related activities) and a procedure (a prescribed sequence of steps for accomplishing some specified task). The planning process may often involve the use of procedures to perform certain tasks, but planning overall is too complex and situation-dependent to be treated as a routine procedure.

Planning is also distinctly a process rather than merely an act because it involves a number of ongoing, iterative, and interdependent activities. Since situations (or the information available about them) continuously change, we must continue to adapt our plans as time allows. Planning is a process that should build upon itself—each step should create a new understanding of the situation which becomes the point of departure

for new plans.[4] Planning for a particular action only stops with execution, and even then adaptation continues during execution.

Planning encompasses two basic functions—envisioning a desired future and arranging a configuration of potential actions in time and space that will allow us to realize that future. Planning is thus a way of figuring out how to move from the current state to a more desirable future state—even if it does not allow us to control the transition precisely.

Planning involves projecting our thoughts forward in time and space to influence events *before* they occur rather than merely responding to events as they occur. This means contemplating and evaluating potential decisions and actions in advance. It involves thinking through the consequences of certain potential actions in order to estimate whether they will bring us closer to the desired future. In war, this naturally involves trying to anticipate possible enemy responses to our actions. Planning also involves integrating these individual decisions and actions together into potential sequences and examining the possible implications of these sequences.

We should think of planning as a learning process—as mental preparation which improves our understanding of a situation.[5] In its simplest terms, planning is thinking before doing. Even if the plan is not executed precisely as envisioned—and few ever are—the process should result in a

deeper situational awareness which improves future decision-making. We should thus think of planning as a learning activity that facilitates the exercise of judgment and not as merely a mechanical procedure.

Generically, a plan is any product of planning. It may be a formal, articulated document or an informal scheme. Since planning is an ongoing process, it is better to think of a plan as an interim product based on the information and understanding known at the moment and always subject to revision as new information and understanding emerge.[6] A plan is thus a structured configuration of actions in time and space envisioned for the future. A plan is the basis for action, cooperation, and adaptation. Most military plans are arranged hierarchically, as plans for one echelon are nested within the plans of higher echelons.

THE VALUE OF PLANNING

Planning keeps us oriented on future objectives despite the problems and requirements of the present situation. Nearly all military activities can benefit from some kind of planning. This is not the same thing as saying that planning should be done in every situation or that every problem requires a planned solution. The value of planning changes with every situation, with every type of activity, and with every level of an organization.

Some situations require extensive planning, and some none at all. We may succeed without planning, and we may fail with it.

Planning is based on the belief that by intervening in events in the present, we can bring about a better future. If there were no way to influence the future, if we perceived that the natural course of events would lead to a satisfactory outcome, or if we believed we could achieve the desired results purely by reacting to the situation as it developed, there would be no reason to plan. There may be cases in which these conditions apply, but these cases are few indeed.

The mere act of planning is not valuable in itself. Use of a prescribed planning procedure does not guarantee that we will improve our situation. Planning takes on value when done properly, using methods appropriate to the conditions and the activities being planned. Done appropriately and well, planning is an extremely valuable activity which greatly improves performance and is a wise investment of time and effort. Done poorly and inappropriately, planning can be worse than irrelevant and a waste of valuable time and energy.

There are several reasons why proper planning is essential. First, planning can be essential to the ability to seize the initiative. In order to seize the initiative, we must be able to anticipate events and act purposefully and effectively before the enemy can. We must be *proactive*. This normally requires planning. Proper planning puts us in the position to be ready to

act when necessary or advantageous and not merely to *react* to developments.

Second, planning is essential to reduce the unavoidable time lag between decision and action on the battlefield, especially at higher levels. Acknowledging this time lag is not an excuse for acting sluggishly but simply a recognition of the reality of war. While some actions can be implemented immediately, others require forethought and preparation. For example, changing the direction of attack may be a relatively simple and immediate matter at the squad level, but changing the scheme of maneuver of a division, to include all its support, is a more complicated and time-consuming effort requiring greater preparation. Simply changing the priority of fires in a division can take considerable time if it is necessary to move artillery units. If we wait until an event materializes to begin to prepare for it, we may not be able to react quickly enough. Proper planning should help us reduce crises by dealing with situations before they reach crisis proportions. In many situations, prompt action requires advance thought and preparation.

Third, planning is essential when situations reach a certain level of complexity. If a situation is simple enough, we can often devise a solution on the spot. When a situation is more complex, consisting of numerous interrelated activities and decisions, we may not be able to keep track of the various possibilities without working systematically through the prob- lem. One of the basic reasons for planning is to come to grips with

complexity. In general, the more complex the situation, the more important and involved becomes the planning effort.

Finally, planning can be essential in novel situations in which experience is lacking. Part of the fundamental value of planning is that it can serve, at least in part, as a substitute for experience.[7] When we are sufficiently experienced in a situation, we may know intuitively what to expect, what goals are feasible, and what actions to take. In situations in which we lack specific, first-hand experience, we may use planning to think through the problem systematically and devise a workable solution.

CATEGORIES OF MILITARY PLANNING

Military planning comprises two broad categories—*force planning* and *operation planning*. Force planning is planning associated with the creation and maintenance of military capabilities. It supports preparations for war and involves the planning necessary to recruit, organize, train, educate, equip, and provide military forces.[8]

Operation planning is planning for the mobilization, deployment, employment, sustainment, and redeployment of military

forces to accomplish assigned missions. At the strategic level, operation planning involves the development of strategic military objectives, strategic concepts, and tasks in support of national security strategy. At the operational level, planning involves developing campaign plans to link the tactical employment of forces with strategic objectives. At the tactical level, planning involves developing objectives, concepts of operations, and tasks for the employment and sustainment of military forces in combat or noncombat military activities at a particular time and place. This publication will focus on operation planning, although the principles discussed apply in general to force planning.

PLANNING TAKES MANY FORMS

Within these two broad categories, planning covers a wide range of activities. In force planning, we design desired capabilities into military forces and units. We plan force structure, size, composition, and manning of units. We plan training by establishing training objectives, designing exercises and other training evolutions, and assigning training resources. We plan education from broad curriculum design to detailed lesson plans. We plan the research, development, testing, and fielding of new technologies. We plan manpower accessions.

In operation planning, we may plan strategically, operationally, or tactically. We plan in anticipation of contingencies that may or may not ever occur. We plan mobilization to assemble forces. We plan deployments to move those forces to the theater. We plan the employment of those forces in military evolutions. We plan the sustainment of forces to maintain their combat power. We plan the redeployment of forces at the end of hostilities or the completion of the mission.

We plan in broad designs, producing outline plans which establish the salient features of the concept of operations as the basis for later detailed planning. We plan supporting functional activities such as aviation, intelligence, fire support, or logistics. We plan the necessary details of execution, producing landing plans, for example, which assign specific units to specific landing waves, or communications plans, which establish communications channels and assign frequencies.

We plan with different time horizons, from long-range to midrange to short-range. Depending on the circumstances, we may plan in years, months, or weeks, or we may plan in days, hours, or minutes.

Planning may involve an individual working through the process alone, or it may involve a commander and staff working together. The planning process may be informal—a squad leader developing a simple scheme of maneuver for an attack, for example. It may be more formal, involving specific procedures and responsibilities—as in the deliberate creation, evaluation, and articulation of a course of action. We may plan

rapidly when time is short or deliberately when more time is available.

Sometimes the activity to be planned is very specific and the goals very clear. At other times, planning must first determine what the activity and the goals are.

Some planning results in extensive written orders complete with operation annexes.[9] Other planning results in brief fragmentary orders issued orally.

Thus, planning can mean different things to different people, to different organizations, or to different echelons within an organization. While almost any military activity involves some form of planning, there is no universal procedure or technique equally suited to all requirements. We must adapt the planning methods we use to the particular requirement we face.

PLANNING AS COMMAND AND CONTROL

Planning is an essential and significant part of the broader field of command and control. We can even argue that planning constitutes half of command and control, which includes influencing the conduct of current evolutions and planning future evolutions. The responsibility to plan is inherent in command, and planning supports practically every command function. In

other words, *all commanders are planners*.[10] In fact, the commander is probably the single most important factor in effective planning. The commander disciplines the planning process so that it is sensitive to time, planning horizons, simplicity, and level of detail. The commander also disciplines the product to ensure the output is relevant to the moment and suitable to the subordinate.

Since planning is part of command and control, the fundamental object of command and control is also the fundamental object of planning—to recognize what needs to be done in any situation and to ensure that appropriate actions are taken. Planning supports both aspects of command and control. It supports decisionmaking by helping to develop and evaluate potential courses of action, and it supports execution by identifying and detailing measures needed to implement the chosen course of action. As a rule, the higher the echelon, the greater the role of planning in the command and control effort. Some high-level headquarters perform command and control almost exclusively through planning and issuing plans.

Like command and control, planning focuses on solving problems: identifying a problem (the difference between our current situation and the desired outcome) and preparing a tentative configuration of actions intended to achieve that outcome. Thus all planners are problem solvers. Furthermore, since planning is problem solving, then a plan is a practical scheme for solving a problem or set of problems.

The object in planning is not merely to solve the problem in the near term, but to do so in a way that also lays the foundation for long-term success.[11] The problem may be broad and conceptual, involving strategic or tactical issues, or it may be more detailed, involving the allocation or assignment of resources. Not all problem solving, however, requires planning. When the problem is simple, planning may not be necessary. When the problem is more complicated—involving a variety of factors—planning becomes essential. This is even more crucial when the problem is actually a complex set of interrelated problems, the solution to each of which affects all the others. If the situation is complex enough, planning may offer the only opportunity to deal with the complete set of problems as a whole.

Command and control can also be viewed as the process of adapting an organization to its surroundings.[12] Planning must therefore support adaptation. There are two basic ways to adapt. The first is to anticipate future requirements and prepare for them prior to execution. Anticipation permits us to adapt in a prepared, concerted way. Given the uncertainty of war, however, we cannot possibly anticipate every action. We must also be able to adapt to situations as they unfold. This second form of adaptation, sometimes called improvisation, simply means taking action that was not initially planned. It requires us to modify our plans in order to deal with unforeseen circumstances.

The apparently contradictory quotations by Napoleon at the beginning of this chapter illustrate that both types of adaptation

are essential in war. In fact, they are complementary. The real difference between them is time: one occurs sufficiently in advance to allow for preparation while the other occurs in real time.

Planning supports both types of adaptation. Planning is the primary means by which we anticipate requirements and adapt to them in advance. We can thus think of planning as *anticipatory adaptation*. Planning also supports adaptation in execution because even when we take unplanned action, we rarely act without any preparation at all. Instead, we adjust from an existing scheme based on a common understanding of the situation and the expected result. Thus, the plan, even if not executed as designed, provides the point of departure for later unplanned action.

Finally, we note that since decisionmaking is central to command and control, planning must contribute to effective decisionmaking. In this respect, we can also think of planning as *anticipatory* decisionmaking—tentative decisions made before the need to act. In this sense, a plan is a system of interrelated decisions subject to revision, and decisions are plans put into effect. The decisions may be broad and conceptual regarding which objectives to pursue or what tactics to adopt, for example, or they may be detailed decisions about resupply rates or the scheduling of aircraft sorties. When decisions are simple or decisionmakers are highly experienced, planning may not be needed. It is when we face multiple decisions that must be

integrated—as is the case in nearly all military evolutions—that planning becomes crucial.

THE FUNCTIONS OF PLANNING AND PLANS

Planning and plans accomplish several key functions.[13] First, plans *direct and coordinate action* by instructing those within the unit what to do and informing those outside the unit how to cooperate and provide support. Plans are thus a principal means through which the commander exercises command and control. In this respect, plans help allocate scarce resources effectively and efficiently. Directing and coordinating action is perhaps the most obvious function of planning, and in some situations it may be one of the most important functions. However, it is not the only function of planning, and we can run into trouble by emphasizing this function too strongly to the neglect of others. Overemphasizing the directing and coordinating function of planning can lead to micromanagement. Under such conditions, if unexpected events occur which nullify the planned action, subordinates may have difficulty adapting.

Second, planning *develops a shared situational awareness*. The process of planning itself should provide a common understanding of the nature of the problem and so support communication and cooperation. In other words, planning is a way of exploring the situation. Even if the understanding of that

situation is incomplete or not entirely correct—*and most attempts to attain situational awareness will be both*—the common understanding provides a basis for unity of effort. In this respect, planning helps commanders both with formulating their intent and in conveying that intent to their subordinates. Planning should help identify both opportunities and threats in advance and allow us to prepare for them. It should help identify centers of gravity and critical vulnerabilities, both friendly and enemy. It should help us avoid preventable mistakes (although we realize that some problems invariably will arise despite our best planning efforts).

Third, planning *generates expectations* about how actions will evolve and how they will affect the desired outcome. As previously mentioned, planning can serve as a partial substitute for experience. Planning can provide perspective and confidence. Planning can help us establish plausible goals, estimate what we can reasonably expect to accomplish, identify problem areas, evaluate courses of action, and develop responses to contingencies through reasoning. By helping to generate expectations, planning can help us recognize when an action is failing to accomplish the desired result.

Fourth, as we have already identified, planning *supports the exercise of initiative*. By helping us detect when expectations are not being realized, planning helps us identify the need to depart from the original plan. The plan provides the point of departure from which to adapt to the unforeseen. By providing a shared situational awareness and shared expectations,

planning helps us to maintain harmony with others while adapting the plan and to properly interpret similar departures by others. This function is especially important in highly uncertain and changeable situations.

Finally, planning *shapes the thinking of planners*. Planning can provide a disciplined framework for approaching problems. It provides coordinated and cooperative methods for solving problems in a group setting. The key is to adopt a method that provides helpful structure without restricting judgment and creativity. The experience of developing a plan can be a valuable preparatory exercise in itself regardless of whether the plan is actually implemented. This function is different from the others—but still important—because while all the other functions serve the needs of execution, this function serves the needs of planners.

In some situations different functions will be more important than others. For example, under the pressure of time, a commander may use the plan to focus on directing the actions of subordinates rather than on building shared situational awareness. In some situations, different functions may actually be in conflict. For example, a plan that addresses numerous contingencies may add flexibility in directing the actions of subordinates but at the expense of initiative, shared awareness, and expectations. The important thing is to recognize the various functions of planning and to understand which functions are most important in any given situation.

TYPES OF PLANS

Plans come in as many forms as planning does.[14] *Strategic plans* cover the overall conduct of a war. *Campaign plans* cover a series of related military operations aimed at accomplishing a strategic or operational objective within a given time and space. *Tactical plans* generally cover the conduct of a single military evolution. *Functional plans* cover specific types of functions or activities, such as aviation, logistics, communications, surveillance, and so on.

More specifically, a plan is a particular type of directive. In general, directives are the physical product of planning. A directive is any communication by which a commander establishes policy or orders a specific action.[15] There are two basic types of directives—*plans* and *orders*. A plan is generally developed well in advance of execution and is not executed until directed or until specified conditions are determined to exist. A plan is based on explicit assumptions about the future. By comparison, an order carries with it the obligation of execution either immediately or at a specified time. A plan becomes an order when directed for execution.

There are two basic types of combat plans. An *outline plan* or *concept plan* is a preliminary plan which outlines the salient features or principles of a course of action prior to the initiation of detailed planning. We use outline or concept plans to evaluate the feasibility of a course of action, to inform higher

headquarters of our intentions, and to initiate planning at lower echelons. An *operation plan* is a plan for a single action or a series of connected actions to be carried out simultaneously or in succession.

There are several types of combat orders. An *operation order* is a directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. An operation order is normally a formal document. A *fragmentary order* is an abbreviated form of an operation order, issued as needed, that eliminates the need for restating information contained in a basic operation order. Fragmentary orders are less formal than operation orders and are often issued orally. They are the type of directive used most frequently at lower echelons. A *warning order* is a preliminary notice of an order or action which is to follow. Its purpose is to allow subordinates as much time as possible to prepare for the contemplated action. An *execute order* is an order to subordinates that directs them to execute existing orders or plans and conveys guidance not provided in earlier instructions.

UNCERTAINTY AND TIME: PLANNING FOR AN UNKNOWABLE FUTURE

As it is with command and control, the defining features of the planning challenge are uncertainty and time. More than

anything else, considerations of time and uncertainty dictate our approach to planning.

All planning is based on imperfect knowledge and involves assumptions about the future. All planning by definition is future-oriented, and the future by nature is uncertain. No matter how determined we are to be fully prepared for a situation, there are finite limits to our ability to plan for the future. The more certain the future is, the easier it is to plan.

Uncertainty increases with the length of the planning horizon and the rate of change in the environment. Planning horizon refers to how far into the future we try to shape events. In order to be of any use, planning must try to anticipate and actively influence the future. By anticipating the future, planning allows us to prepare and coordinate our actions. The farther into the future we can plan, the more time we can allow ourselves to prepare. However, the farther into the future we plan, the wider the range of possibilities and the more uncertain our forecast. A fundamental tension thus exists between the desire to plan far into the future in order to facilitate preparation and coordination, and the fact that the farther into the future we try to plan, the less certain we can be, and the less relevant our preparations may be.

Given the fundamentally uncertain nature of war, we must recognize that the object of planning is not to eliminate or minimize uncertainty, but to allow us to decide and act effectively in the midst of uncertainty. While all planning contains an

element of forecasting, we must recognize that the object of planning is not to predict the future. How accurately a plan forecasts the future is not generally a measure of the plan's effectiveness. Rather, the measure of effectiveness is how effectively planning allows us to adapt to an uncertain future.

Not only is war fundamentally uncertain, it is always changing. Because situations change continuously, plans tend to lose their value over time, and they must be updated as the situation changes. The more frequently and quickly the situation changes, the more often a plan must be revised.

Time becomes a precious commodity that both sides will attempt to exploit. The result is a more or less constant pressure to decide and act more quickly than the enemy. We must use available planning time wisely. All planning takes time, and we should realize that it may occur at the expense of tempo. However, this is not necessarily the case. Planning done well in advance of the need to act may actually permit us to act more quickly when the time for action arrives.

COMPLEXITY: THE LIMITS OF FORESIGHT AND DESIGN

All planning involves attempting to forecast and influence future development. Such efforts tempt us to believe we have

more control over the course of events than we do. We may mistakenly come to believe that the object of planning is to impose control over the events of the battlefield. Planning attempts to shape the future, yet war is an intrinsically chaotic phenomenon that denies precise, positive control over events.

Clausewitz wrote, "Countless minor incidents—the kind you can never really foresee—combine to lower the general level of performance, so that one always falls far short of the intended goal."[16] Military problems simply are not amenable to engineered solutions. We can rarely expect to accurately foresee outcomes or precisely control developments in war, especially over long horizons of time. Since war is an interactive clash between independent wills, military situations are not one-sided problems, as are engineering problems. Even as we begin to develop a solution to a problem, the problem changes. Many military problems simply cannot be solved optimally, no matter how long or hard we may think about the problem beforehand. In many cases, the best we can hope to do is to devise partial, approximate solutions and refine those solutions over time, even after execution has begun.

Planning is the process of contemplating future actions and their effects, but individual cause and effect are nearly impossible to isolate in a complex phenomenon like war. Actions in war, friendly or enemy, rarely have precisely the effect we anticipate. Moreover, war is not a single problem, but a complex system of interdependent problems, the solution to each of which affects the outcomes of all the others.

Finally, further complicating all the above is the realization that resources will always be limited. This introduces the problem of making the most efficient use of available resources in an uncertain environment that defies optimization. It is only when we see planning within the context of the complex environment of war that we fully recognize it as one of the most challenging intellectual activities in which we can engage.[17]

PLANNING MISUSED

Planning is an essential military activity. However, several common mistakes must be understood so that we can guard against them.[18] These pitfalls generally derive from a common cause—the failure, or more often the willful refusal, to appreciate the unpredictability and uncertainty of war. Pointing out these mistakes is not a criticism of planning but of *improper* planning. Commanders must recognize both the benefits and the potential pitfalls of planning. It is the commander's responsibility to ensure that planning is conducted properly to avoid these pitfalls. The commander disciplines the planning process and teaches the staff the relevance of product content.

First is the *mistake of attempting to forecast and dictate events too far into the future*. In part, this may result from the

natural desire to believe we can control the future. It is a natural tendency to plan on the assumption that the future will merely be a linear continuation of present conditions, and we often underestimate the scope of changes in direction that may occur. Because we cannot anticipate the unexpected, we tend to believe it will not occur. Evidence shows that most plans are overcome by events much sooner than anticipated by the planners.[19]

Second is the *mistake of trying to plan in too much detail*. This is not a criticism of detailed planning but of planning in more detail than the conditions warrant. This pitfall often stems from the natural desire to leave as little as possible to chance. In general, the less certain the situation, the less detail in which we can plan. However, the natural response to the anxiety of uncertainty is to plan in *greater* detail, to try to cover every possibility. This effort to plan in greater detail under conditions of uncertainty can generate even more anxiety, which in turn leads us to try to plan in even more detail. The result can be an extremely detailed plan that does not survive the friction of the situation and that constricts effective action.

Third is the *tendency to use planning as a scripting process that tries to prescribe friendly and even enemy actions with precision*. When planners fail to recognize the limits of foresight and control, the plan can become a coercive and overly regulatory mechanism that restricts initiative and flexibility.

The focus for subordinates becomes meeting the requirements of the plan rather than deciding and acting effectively.

Last is the *tendency for institutionalized planning methods to lead to inflexible or lockstep thinking and for planning and plans to become rigid and overly emphasize procedures*. We have mentioned that planning provides a disciplined framework for approaching problems. The danger is in taking that discipline to the extreme. It is natural to develop planning routines to streamline the planning effort. Insofar as they provide economy of effort and coordination among several people working on the same problem, routines can improve planning. In situations where planning activities must be performed repeatedly with little variation, it helps to have a well-rehearsed procedure already in place. Nevertheless, there are two dangers. The first is in trying to reduce those aspects of planning that require intuition and creativity to simple processes and procedures. Not only can these skills not be captured in procedures, but attempts to do so will necessarily restrict intuition and creativity. The second danger is that even where procedures are appropriate, they naturally tend to become rigid over time. This directly undermines the objective of planning—enabling the organization to become more adaptable. This tendency toward rigidity "must be viewed as one of the gravest pathological characteristics of planning and of plans."[20]

CONCLUSION

Planning is an essential part of command and control, helping us to decide and act more effectively. As such, planning is one of the principal tools the commander uses to exercise command and control.

Planning involves elements of both art and science, combining analysis and calculation with intuition, inspiration, and creativity. To plan well is to demonstrate imagination and not merely to apply mechanical procedures. Done well, planning is an extremely valuable activity that greatly improves performance and is an effective use of time. Done poorly, it can be worse than irrelevant and a waste of valuable time. The fundamental challenge of planning is to reconcile the tension between the desire for preparation and the need for flexibility in recognition of the uncertainty of war.

Chapter 2

Planning Theory

" . . . [A] good plan violently executed now is better than a perfect plan next week."[1]

—George S. Patton, Jr.

"The Senior Commander of a force plans the battle in its broader sense and is responsible for ultimate success or failure. However, once a subordinate unit has been committed to action, he must, for the time being, limit his activities to providing the necessary support and insuring the coordination of all components. Regardless of how well conceived the Senior Commander's plan may be, it can be nullified if his front line platoons are incapable of carrying out the mission assigned."[2]

—3d Marine Division during World War II

Having reached a common understanding of the nature of planning, we turn to developing a theory about plans and the planning process that will serve as the basis for an effective approach to military planning.

THE PLANNING PROCESS

Our study of the theory of planning starts with a generic description of the planning process.[3] This is not meant to prescribe a sequence for staff action but rather to describe in general terms what transpires during planning regardless of the echelon at which the planning occurs, the specific circumstances, or the procedures used. In other words, this is generally what planning involves. (See figure 1, page 31.)

Planning generally starts with *assessing the situation*. We gather information and orient ourselves to the conditions. We identify the various elements and dynamics of the situation, centers of gravity, and critical vulnerabilities. We make projections about likely future developments. In short, we identify the problem or problems to be solved.

Based on our assessment of the situation, we *establish the goals and objectives* we expect to pursue, including the underlying intent. These goals and objectives describe the desired future that we expect to realize. They also establish the

standards by which we will judge success. Depending on the circumstances, goals and objectives may be assigned by higher authority, or we may establish our own goals and objectives based on our situation assessment. During this phase we also resolve conflicts between competing goals—not at all uncommon in a complex undertaking like war—and may have to decide what to do when furthering one goal requires compromising or even sacrificing another.[4] While commanders play an integral part in all aspects of the planning process, they make their greatest contribution during the establishment of goals and objectives. The formulation of goals and objectives along with their underlying intent is central to the conduct of effective planning.

Having envisioned the desired future, we next *conceptualize a course of action* by which we expect to realize that future. We describe the salient features of the plan and the interactions among them. Next, having developed the plan in broad outline, we *detail the course of action*. This phase includes *execution* planning—developing practical measures for carrying out the concept. The detailing phase may not always be needed; sometimes only a broad plan is required. Frequently, detailed planning may be left until later or may be passed to another, lower-level organization.

An important part of the planning process is *evaluating the course of action*, in which we try to identify likely difficulties or coordination problems as well as the probable consequences of the planned action. We think through the tentative plan to

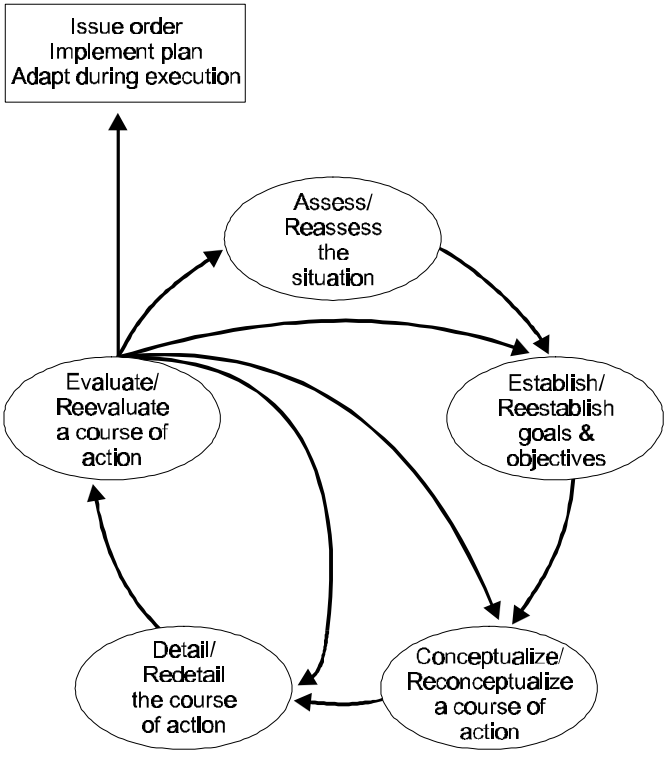


Figure 1. The planning process.

estimate whether it will help us reach the desired future state. Evaluation is not a rote procedure; each plan should be

scrutinized on its own merits. Evaluation may force us to revisit any of the other phases if discrepancies arise. Not only does evaluation appraise the quality of the plan, but it should also uncover potential execution problems, decisions, and contingencies. In addition, evaluation influences the way we look at the problem and so may renew the cycle. In some instances, evaluation may be a distinct phase after a plan is developed—such as when a senior headquarters formally analyzes a deliberate plan—but more often evaluation is an embedded activity occurring concurrently with the plans being developed.[5] For this reason, figure 1 shows evaluation both as a distinct phase in sequence and as a broader activity touching all the other phases.

Having gone through one or more iterations of the process, we issue a plan in some form of directive or instruction— anything from a brief warning order, to an oral fragmentary order, to a written operation plan or order complete with annexes. However, a plan does not emerge fully formed and articulated after one iteration, to be executed as is by subordinate echelons. A plan evolves over time, and so we continue to cycle through the process as time permits, refining the plan until the time for execution, at which point the latest version of the plan becomes the basis for action. (However, it is important to point out that continuing to revise a plan as time permits does not necessarily mean adding ever-increasing detail or complexity.) In fact, planning continues even after execution has begun, as we continue to revise later phases of action as the situation

unfolds. An important aspect of this model of the planning process is that much of planning is actually replanning.

Figure 1 is a simple schematic to aid understanding of the planning process. The phases roughly follow this sequence. However, it is important to remember that planning is not, in reality, a simple sequence of steps. It is a complex process of interacting activities. Any one phase in this model may actually involve various planning activities. The phases often occur in parallel rather than in series, and the distinctions between them are rarely clean. Furthermore, any phase in the process may feed back to a previous one. For example, conceptualizing a course of action generally follows establishing goals and objectives; but it is difficult to establish feasible and meaningful goals without some idea of how we might accomplish them. Likewise, it is difficult to conceptualize a good course of action without some idea of the details of execution.

Finally, this model is not meant to suggest that a single planner or planning group necessarily performs the entire process from beginning to end. It is likely that different echelons may contribute to the same planning process, with higher echelons establishing objectives and broad concepts and lower echelons detailing the course of action. We should keep in mind that planning is going on in other organizations— above, below, and adjacent—at the same time and that all this planning is interrelated. This complex interaction is one of the reasons that effective planning cannot be reduced to a linear sequence of steps.

ANALYSIS AND SYNTHESIS

Effective planning requires two vastly different types of mental activity: analysis and synthesis.[6] Analysis generally corresponds to the science of planning. Analysis is the systematic process of studying a subject by successively decomposing the subject into parts and dealing with each of the parts in turn. Analysis can support decisionmaking at the beginning of the planning process by processing information for the decisionmaker and by studying issues that impact on the decision. It can be used to evaluate potential courses of action by studying feasibility and requirements. It can be used to turn a broad concept of operations into a practicable plan by decomposing the concept into individual tasks. What analysis cannot do is make the creative decisions that are central to the planning process.

The other fundamental type of planning activity is synthesis. Synthesis generally receives less attention than analysis, but it is just as important—if not more so. While analysis involves systematically decomposing a whole into parts, synthesis is the creative process of integrating elements into a cohesive whole. It is a function of creativity and judgment. It is not systematic. Synthesis cannot be reduced to a set of procedures; in fact, to try to do so is counterproductive because it restricts the creativity that is essential to the process. The key judgments essential to effective planning—establishing aims and objectives, formulating the intent behind assigned missions, and devising a course of action—simply cannot be made by analysis, no matter how thorough or efficient. Such aspects of planning cannot

be grasped by decomposing the subject into parts. Instead, such judgments can be made effectively only through synthesis.

Planning requires both the judgment of synthesis and the systematic study of analysis in some combination. The two are complementary. Analysis may precede synthesis by identifying and structuring the elements that can be combined. Analysis may follow synthesis by scrutinizing and adding details to its product. Nonetheless, analysis cannot replace synthesis, nor is synthesis possible without analysis. The required combination of analysis and synthesis in any particular case depends on the situation, especially the stage in the planning process and the nature of the activity being planned.

THE PLANNING HIERARCHY

Planning activities occupy a hierarchical continuum that includes conceptual, functional, and detailed planning. (See figure 2, page 36.) At the highest level is what we can call *conceptual* planning. It establishes aims, objectives, and intentions and involves developing broad concepts for action. In general, conceptual planning is a process of creative synthesis supported by analysis. It generally corresponds to the *art* of war. Developing tactical, operational, or strategic concepts for the overall conduct of military actions is conceptual planning.

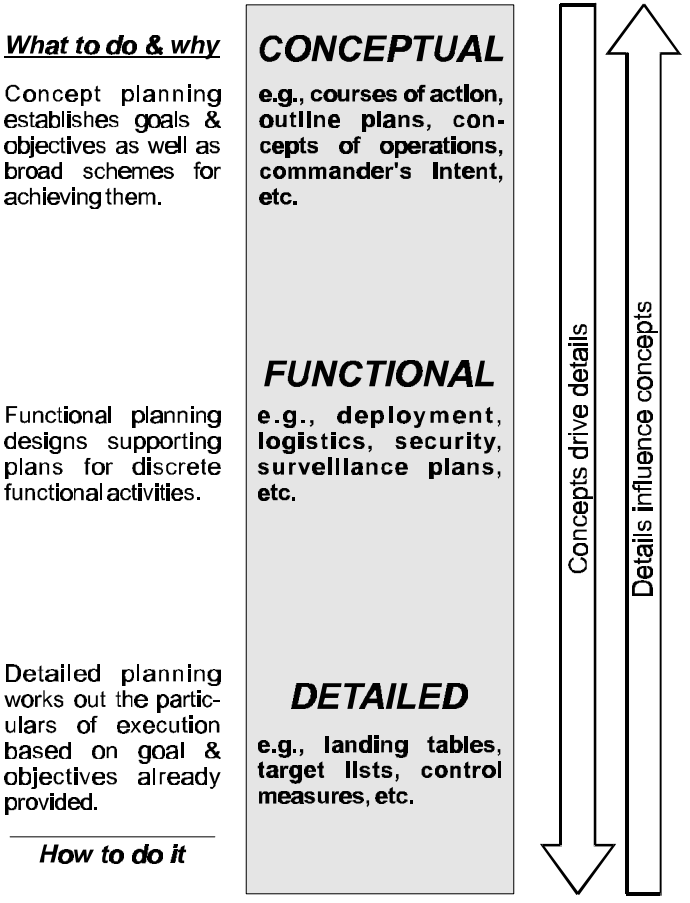


Figure 2. The planning hierarchy.

At the lowest level is what we can call *detailed* planning that is concerned with translating the broad concept into a complete and practicable plan. Detailed planning generally corresponds to the *science* of war and encompasses the specifics of implementation. It is generally an analytical process of decomposing the concept into executable tasks, although it likely involves some elements of synthesis as well. Detailed planning works out the scheduling, coordination, or technical issues involved with moving, sustaining, administering, and directing military forces. Unlike conceptual planning, detailed planning does not involve the establishment of objectives; detailed planning works out actions to accomplish objectives assigned by higher authority.

Between the highest and lowest levels of planning is what we can call *functional* planning that involves elements of both conceptual and detailed planning in different degrees. Functional planning is concerned with designing supporting plans for discrete functional activities like maneuver, fires, logistics, intelligence, and force protection.[7]

Due to the importance of conceptual planning, the commander will normally personally direct the formulation of plans at this level. While the commander is also engaged in both functional and detailed planning, the specific aspects of these are often left to the staff.

In general, conceptual planning should provide the basis for all subsequent planning. As our model of the planning process shows, planning should generally progress from the general to the specific. For example, the overall intent and concept of operations lead to subordinate intents and concepts of operations as well as to supporting functional concepts. These in turn lead eventually to the specifics of execution. However, the dynamic does not operate in only one direction. Conceptual design must be responsive to functional constraints. For example, the realities of deployment schedules (a functional concern) can dictate employment schemes (a conceptual concern). Functional design in turn must be responsive to more detailed requirements of execution. In this way, the different levels of planning mutually influence one another.

MODES OF PLANNING

Planning activities also fall into one of three modes which we can think of as occupying a horizontal continuum based on the level of uncertainty. These modes are commitment, contingency, and orientation planning.[8] (See figure 3.) When we are reasonably confident in our forecasts about the future, we perform *commitment planning*—we commit to a particular plan, and we commit resources to that plan. Some aspects of military actions and some aspects of the future are more predictable

than others, and for these we can plan in commitment mode. This commitment allows us to undertake the physical preparations necessary for action such as staging supplies or task-organizing and deploying forces. Commitment planning does not mean that plans are unalterable, but it may mean that changes we wish to make in this mode may not be easy or immediate. We should always remember that there is no such thing as absolute certainty in war, and even during commitment planning we should continue to assess the situation and be prepared to adapt as necessary. Of the three modes, commitment planning allows the highest level of preparation but has the least flexibility.

When we are not certain enough about the future to commit ourselves to one plan of action, but we have a reasonably good idea of the possibilities, we perform *contingency planning*—we plan for several different contingencies to the extent that circumstances permit without committing to any one contingency. Contingency planning is important in allowing us

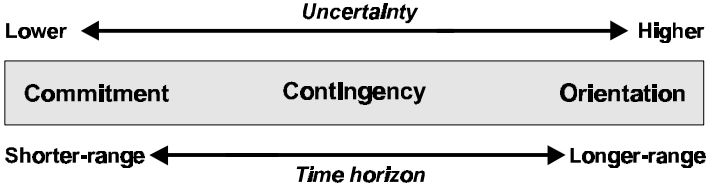


Figure 3. Planning modes.

to respond quickly when situations requiring action arise. In contingency planning, we normally do not plan in the same detail as in commitment planning, but we lay the groundwork for exploiting likely developments. The contingency mode balances level of preparation with flexibility.

When the uncertainty level is so high that it is not worthwhile to commit to a plan or even to develop particular contingencies, we perform *orientation planning*. Here the object is not to settle on any particular line of action but instead to focus on assessing the situation and to design a flexible preliminary plan that allows us to respond to a broad variety of circumstances. In orientation planning, we normally do not have a specified, purposeful objective other than to learn about the situation and identify feasible objectives. We develop plans which shape the action in broad terms in an effort to cultivate the conditions which may allow more decisive action later. For example, orientation planning may commit only limited forces while maintaining the bulk of the force in reserve, ready to respond to the situation as it evolves. Orientation planning thus consists of designing responsiveness and flexibility into the organization. Of the three modes, orientation planning provides the most flexibility but the least preparation for a specific mission.

The planning modes also generally reflect the planning sequence. Finding ourselves in a new situation, we first undertake orientation planning to familiarize ourselves with the environment and make basic provisions. Having become more familiar

with the situation, we begin to develop different contingencies and to plan for each as the situation permits. As the time for execution nears, we commit to one course of action and make the necessary preparations. Because uncertainty is usually related to how far into the future we consider, the planning modes also correlate to planning horizons. For long-term planning, we are more likely to plan in orientation mode, while for short-term planning, we are more likely to plan in commitment mode. However, the level of uncertainty is more important than the horizon; for example, if a near-term situation is highly uncertain, orientation planning may be our only option.

The critical lesson of this discussion is that different situations require different planning modes and that we must be able to recognize the mode appropriate for a given situation.

PLANNING PARAMETERS: DETAIL AND HORIZON

Effective planning depends on an appreciation for the appropriate level of detail and the appropriate planning horizon. The planner must continuously keep these considerations in mind; there is no established level of detail or planning horizon that can be determined by set rules. These parameters are situation-dependent, and they require judgment, although, in general, the higher the echelon of command, the less should be the level of detail and the more distant should be the planning horizon.

The planner must continuously deal with the issue of detail or specificity. Some types of activities require greater detail than others. Some types of situations permit greater detail than others. For example, we can and should generally plan in greater detail for a deliberate attack than for a hasty attack. In some respects, the distinction between conceptual and detailed planning is a matter of degree—what constitutes detail at one echelon is broad concept at a lower echelon. In general, the more uncertain and changeable the situation, the less the detail in which we can plan.

As with the level of detail, the appropriate planning horizon—how far into the future we plan—is a constant concern for every planner. If we plan using an unnecessarily close horizon, we are likely to reach a point at which we are unprepared for future action. If we plan using too distant a horizon, we risk developing a plan that turns out to have little relation to actual developments. The critical concern is to identify appropriate planning horizons for each mode of planning. We will often find ourselves working with several different planning horizons at once, as we simultaneously plan in different modes for several different phases of upcoming evolutions. For example, we may be performing commitment planning for an imminent operation, developing contingencies for later phases, and performing broad orientation planning for still later phases. In general, the more uncertain the situation, the closer must be our commitment and contingency planning horizons.

DECISION AND EXECUTION PLANNING

Another way to categorize planning is by its relationship to decisionmaking. Planning that occurs before the decision we can call *decision* planning. Decision planning supports the actual command decisionmaking process by helping to develop an estimate of the situation and by generating, evaluating, and modifying possible courses of action. It studies the feasibility and supportability of the various courses under consideration. Decision planning is generally conceptual planning. It involves synthesizing various elements of information into a course of action. This process is often supported by some analysis such as developing estimates of feasibility, supportability, and requirements.

Planning that occurs after the decision has been made is *execution* planning.[9] Execution planning translates an approved course of action into an understandable and execut- able plan through the preparation of plans or orders. Execution planning principally involves functional and detailed planning and analysis, although it can involve some synthesis and conceptual design. Execution planning at one echelon becomes the basis for decision planning at subordinate levels as the subordinate develops a course of action to accomplish the mission assigned from above.

Where planning time is limited, there may be a tradeoff between decision and execution planning because the time given to one must normally be taken from the other. Is the activity of generating and evaluating additional courses of action worth the time and effort when it may occur at the expense of execution planning or other important preparations? If we already have a feasible course of action, are we better served by spending our limited planning time preparing for the practical problems of execution? There are no simple answers to these questions. The appropriate approach depends on the situation. Patton's epigraph at the beginning of this chapter suggests that what matters in the end is aggressive and timely execution rather than perfect design.

DELIBERATE AND RAPID PLANNING

All planning must be based on sensitivity to the time available.[10] When sufficient time is available, and there is no advantage to be gained by acting more quickly, we perform *deliberate* planning. Deliberate planning is performed well in advance of expected execution, often during peacetime or before the initiation of a deliberate operation. Deliberate planning relies heavily on assumptions about circumstances that will exist when the plan is implemented.

When time is short, or there is an incentive to act quickly, we perform *rapid* planning. Whereas deliberate planning relies on significant assumptions about the future, rapid planning is generally based on current conditions and is therefore more responsive to changing events. Rapid planning tends to be less formal than deliberate planning.

While distinct in concept, in practice deliberate and rapid planning form a continuum and complement each other. Early in the planning process, if appropriate, we may perform deliberate planning. As the time for execution approaches, we move into rapid planning as we replan. Deliberate planning thus forms the basis for later rapid planning, while rapid planning often amounts to the revision of earlier deliberate plans.

FORWARD AND REVERSE PLANNING

We can further distinguish between forward and reverse planning.[11] (See figure 4, page 46.) Forward planning involves starting with the present conditions and laying out potential decisions and actions forward in time, identifying the next feasible step, the next after that, and so on. Forward planning focuses on what is feasible in the relatively near term. In forward planning, the envisioned end state serves as a distant and general aiming point rather than as a specific objective.

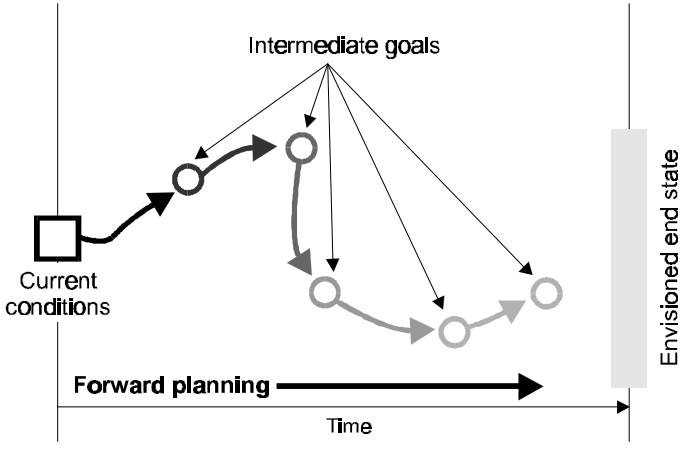


Figure 4. Forward planning.

Forward planning answers the question: *Where can we get to next?*

Reverse planning involves starting with the envisioned end state and working backward in time toward the present, identifying the next-to-last step, the next before that, and so on. (See figure 5.) Reverse planning focuses on the long term goal. It answers the question: *Where do we eventually want to get?* To plan effectively in reverse, we must have a clear and relatively permanent goal in mind, or we must be able to define the goal broadly enough that it will provide a valid point of reference regardless of how the situation may develop. Consequently,

reverse planning is possible only in relatively predictable situations. For example, we often use reverse planning to allocate available preparation time when there is a fixed deadline.

Of the two methods, forward planning is the more natural because it is consistent with the progress of time and the way we act.[12] Reverse planning is more difficult, both because it is opposite to the way we naturally think and act and because goals in war are rarely clear or unchanging over the long term.

In practice, planning effectively often means combining the two methods, simultaneously using forward planning to provide an idea of what is feasible in the short term and reverse planning to provide a point of aim over the long term. The

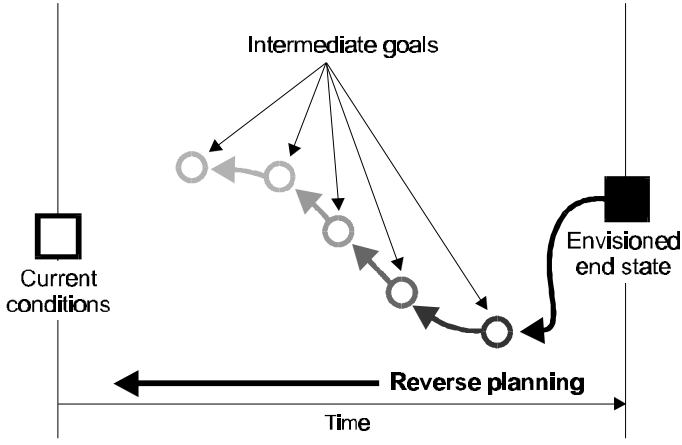


Figure 5. Reverse planning.

envisioned end state provides a point of aim for planning purposes at any moment in time. It is not necessarily a fixed destination. We may have to change our desired goal if, as we move forward in time, the situation changes dramatically. On the other hand, a well-chosen and enduring end state may provide continuity and focus even in the midst of turbulent and changing conditions.

COMPONENTS OF A PLAN

Regardless of other characteristics, every plan usually contains several basic categories of information.[13] Each plan should have a *desired outcome*, which includes the intent (purpose) for achieving that outcome. The desired outcome often includes a time by which the mission must be accomplished. This element of a plan is essential because it forms the basis for the other components of the plan. Goals and objectives may be general, in which case they are defined by relatively few criteria and offer broad latitude in their manner of accomplishment, or they may be more specific, in which case they are defined by numerous criteria and are more narrowly bounded. We should recognize that there is a critical distinction between general goals, which may be good, and vague ones, which are not. While general goals have relatively few defining criteria, vague goals lack any usable criteria by which we can measure success.[14] In a complex and difficult enterprise like war, few

things are as important or as difficult as setting clear and useful goals.[15] This is a skill requiring judgment and vision. The reality is that, given the nature of war, we will often have to act with unclear goals. Unclear goals are generally better than no goals, and waiting for clear goals before acting can paralyze an organization.

Every plan includes the *actions intended to achieve the desired outcome*. Most plans include several actions, arranged in both time and space. These actions are usually tasks assigned to subordinate elements. Depending on circumstances, these tasks may be described in greater or lesser detail over farther or nearer planning horizons. Every plan should also describe the *resources to be used* in executing those actions, to include the type, amount, and allocation of resources as well as how, when, and where those resources are to be provided. Resource planning covers the personnel or units assigned to different tasks and other resources such as supplies or, in noncombat situations, funding.

Finally, a plan should include some *control process* by which we can supervise execution. This control process includes necessary coordination measures as well as some feedback mechanism to identify shortcomings in the plan and make necessary adjustments. The control process is a design for anticipating the need for change and for making decisions during execution. In other words, the plan itself should contain the means for changing the plan. Some plans are less adjustable than others, but nearly every plan requires some mechanism for

making adjustments. This is a component of plans which often does not receive adequate consideration. Many plans stop short of identifying the signals, conditions, and feedback mechanisms that will indicate successful or dysfunctional execution.[16]

TIGHT AND LOOSE COUPLING

We can describe plans as tightly or loosely coupled.[17] Coupling is a relative term referring to how closely two or more actions in a plan interact. It is one of the most important features in plans. Tight coupling means there is a close relationship between two parts. Coordination must be precise. What happens to one directly affects the other. Tightly coupled plans have more time-dependent processes, and those processes are also more constant—that is, they must occur at specific times and in specific sequences. Plans with many tight couplings can be described as fully *integrated* or *synchronized*. Highly integrated plans may make efficient use of assets but usually at the expense of flexibility.

Under proper conditions, tightly coupled plans can achieve near-optimal results. However, tightly coupled plans do not tolerate friction or disruption well—a disruption to one phase of the plan can reverberate through the entire plan and cause systemic failure. In tightly coupled systems, tolerance for friction or disruption must specifically be designed into the plan. This can be a problem because predicting when and where friction

will arise is extremely difficult, if not impossible. Tightly coupled plans tend to be easily damaged and difficult to repair. In general, plans requiring continuous, close coordination between units are tightly coupled. Likewise, plans requiring numerous restrictive control measures, on-order taskings, or short phases are usually tightly coupled.

By comparison, loose coupling refers to plans in which the interactions between parts are not close. Loosely coupled plans thus do not require close coordination between elements. They permit greater freedom of action and variation in execution. In general, plans that allow subordinates broad latitude without having to worry about adversely affecting the rest of the plan are loosely coupled. Loosely coupled plans thus tend to be more flexible and easier to execute than tightly coupled plans.

Loosely coupled plans may not be as efficient or precise as tightly coupled ones, but they tolerate friction and disruption better. Plans with many loosely coupled tasks can be described as *modular* or *asynchronous*—that is, each part of the plan is roughly independent of the others, which means that any part can be modified or repaired without affecting the other parts.

Whether a plan should have tight or loose coupling depends on a variety of factors, most important of which is the nature of the action being planned. Some plans or actions require tight coupling. When the integration and allocation of scarce resources, including time, are the overriding concern, plans generally require tight coupling. An example of tight coupling is a close air support strike that requires the aircraft to be on target

at precisely the right moment, a marking round on the target seconds before the aircraft makes its attack run, and indirect fire to suppress enemy air defenses immediately before and after the attack. Likewise, carrier flight deck operations require tight coupling. Other plans, such as for a main attack by one battalion and supporting attack by adjacent battalions, may not require close coupling.

If there is little chance of disruption or unanticipated developments, relatively tight coupling may be appropriate. However, in situations with high levels of friction, chance, unpredictability, and interaction between independent wills, loose coupling is more appropriate. This is especially true in cases—such as in most tactical situations—in which disruption to the plan is inevitable and repairs will be necessary.

SIMPLICITY AND COMPLEXITY

Finally, we can describe plans by how simple or complicated they are.[18] In large part, simplicity and complexity derive from the numbers of separate actions or parts in a plan. The more actions a plan contains, the more complicated it is—to include the number of different phases, branches, sequels, contingencies, and decisions. In general, the greater the number of parts, the greater the amount of coordination required among them. There are even more sources of complexity than the number of parts. Complexity also stems from the interactions among the

parts of a plan. For example, integrated plans, with their numerous tight couplings, tend to be more complicated than modular plans. Plans with high levels of detail and structure—as in numerous control measures—tend to be more complicated than coarser and less structured plans. Centralized plans, which place numerous actions under the direct command of a single authority, tend to be more complicated than decentralized plans, which distribute authority.

When it comes to simplicity and complexity, the needs of executors and planners may sometimes be in conflict.[19] Given time to plan, planners may naturally tend to develop increasingly complex plans with numerous decision points, branches, or phases because this is a useful way of deepening and structuring their knowledge of a situation. The increasing complexity of a plan often reflects the increasing understanding of planners.

However, the needs of execution are usually better served by simplicity. We generally consider simplicity a virtue in plans, and this is a valid principle, but in practice, the level of complexity of a plan should be consistent with the nature of the situation. A plan that is overly simple in dealing with a complex problem is no better than a plan that is unnecessarily complicated. Some plans are unavoidably complicated by nature—such as an air plan, for example, which must account for a high number of sorties and a variety of different functions. Other plans can be extremely simple in concept even though they may involve the actions of large formations. Here, the

commander disciplines the planning process by ensuring that the plan emphasizes simplicity while at the same time conveying the appropriate level of detail. It is correct to say that the plan should be as simple as the situation allows. There is a variety of ways to simplify plans, as we will discuss in the next chapter.

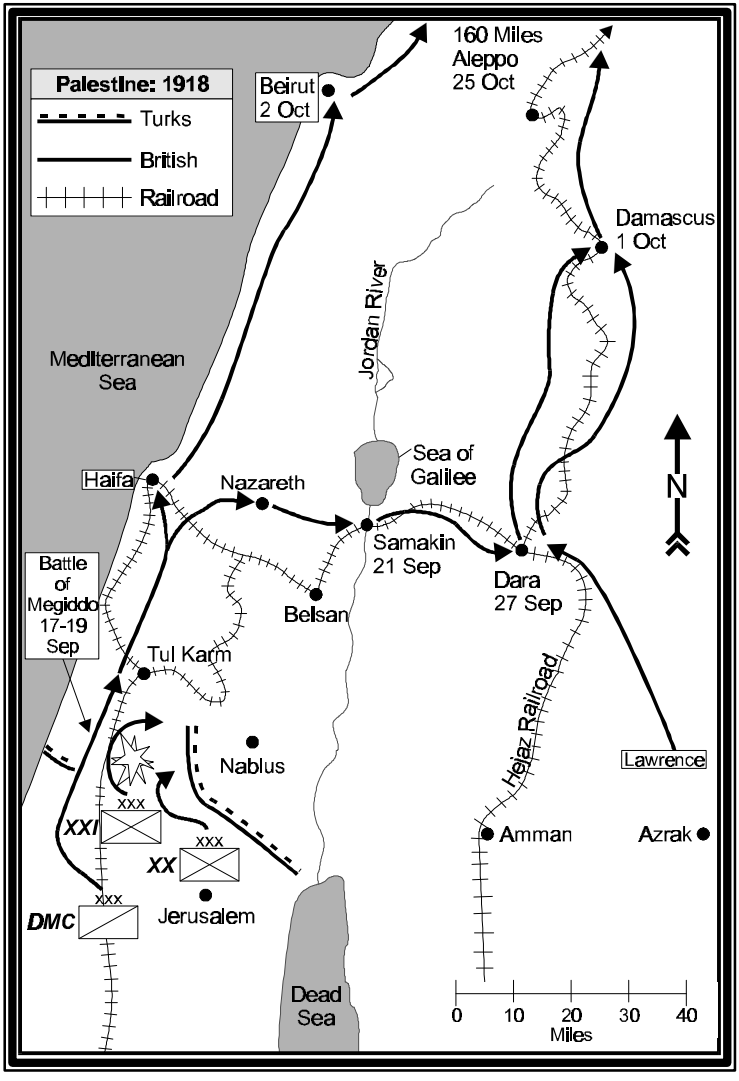
A CASE STUDY: PALESTINE 1918

General Sir Edmund Allenby's campaign against the Turks in Palestine in the fall of 1918 illustrates the use of the planning concepts discussed in this publication. Three Turkish armies totaling some 36,000 men and 350 guns defended a line from the Mediterranean to the Jordan Valley. Allenby's British force of 57,000 infantry, 12,000 cavalry, and 540 guns faced them from the south, Allenby's goal was the final defeat of the Turks in Palestine.

Allenby's plan directed the actions of three corps, T. E. Lawrence's Arab force, and supporting air forces. Yet his plan was inspiringly simple in concept. He would mass his forces to create a breakthrough along the Mediterranean shore, near Megiddo. His Desert Mounted Corps (DMC) would pour north through the gap on the heels of his infantry and flood into the Turkish rear while the British line would swing north and east, pivoting on the Jordan Valley, like a huge gate.

Keeping his final objective of Aleppo firmly in mind, Allenby planned his initial phases meticulously and the later phases only in broad outline. The initial breakthrough, which would become the Battle of Megiddo, was planned over the course of weeks and included a carefully coordinated deception operation. The deception operation especially required detailed planning involving the creation of phony assembly areas in the Jordan Valley and the conspicuous shifting of forces east by daylight and back under cover of darkness. A race meet was elaborately planned and widely publicized for the day of the offensive.

The offensive started when Lawrence's Arab guerrillas swept out of the eastern desert on September 17th to cut the railways around Dara in the Turkish rear. Lawrence's action was only very loosely coupled with the other elements of the plan. It supported the rest of the


Palestine: 1918
Turks
British
Railroad
Beirut
2 Oct
160 Miles
Aleppo
25 Oct
Damascus
1 Oct
Jordan River
Mediterranean
Sea
Haifa
Nazareth
Sea of
Galilee
Samakh
21 Sep
Dara
27 Sep
N
Battle
of
Megiddo
17-19
Sep
Beisan
Tul Karm
Nablus
Hejaz Railroad
Lawrence
Amman
Azrak
XXI
XX
DMC
xxx
Jerusalem
Dead
Sea
0
10
20
30
40
Miles

plan indirectly by threatening the enemy rear and causing the Turks to commit reserves to Dara, but due to physical separation and the independent nature of Lawrence's mission, there was no requirement for direct coordination. Allenby's air forces also bombed Dara, but these air operations were again only loosely coupled with Lawrence's actions.

However, the main attack to create and exploit the breakthrough was closely coordinated. XXIst and XXth Corps attacked together, with XXIst Corps creating the gap on the left and XXth Corps staying abreast to prevent enemy forces from escaping east. Their operations, and the air forces supporting them, were tightly coupled. The two divisions within XXth Corps started out independently of one another but converged on Nablus in a coordinated attack. The Desert Mounted Corps' initial exploitation was also tightly coupled to XXIst Corps' advance, but once the pursuit began, coupling was much looser as cavalry divisions and even brigades were assigned independent objectives.

The initial operation was deliberately planned and executed with little need for modification. Because of the uncertain and disorderly nature of the situation after the breakthrough, the plan for the pursuit was of necessity more flexible and more rapidly developed. Unfettered by

by the need for close coordination with other units, Allenby's forces, led by his cavalry, raced generally northward through the disintegrating Turkish armies. By October 1st, Allenby had captured Damascus. Aleppo fell on October 25th. Starting with a tightly coupled deliberate attack to rupture the fortified Turkish defenses and moving into a loosely coupled pursuit, Allenby planned and conducted a masterful campaign, advancing 360 miles in 38 days, destroying three Turkish armies, and knocking Turkey out of the war.[20]

CONCLUSION

We have addressed planning from several different aspects. This discussion outlines the range of factors governing the form that planning and plans may take. We have described the different modes of planning based on the level of situational uncertainty—from commitment planning to orientation planning. We have looked at the hierarchy of planning from conceptual planning, which deals with broad schemes and intentions, to detailed planning, which deals with the specifics of execution. We have discussed the basic parameters which all

planning must consider—the proper level of specificity and the proper time horizon. We have compared the characteristics of deliberate and rapid planning as well as forward and reverse planning. We have described the different features of plans, such as tight and loose coupling and simplicity and complexity. Planning effectively requires achieving the proper balance among these various and sometimes competing factors and characteristics. As we will see in chapter 3, the commander plays the key role in helping to achieve this balance, tailoring the approach to planning to the requirements of the specific situation.

Chapter 3

Planning Effectively

"No plan survives contact with the enemy."[1]

—Helmuth von Moltke

"Plans must be simple and flexible. Actually they only form a datum plane from which you build as necessity directs or opportunity offers. They should be made by the people who are going to execute them."[2]

—George S. Patton

Having arrived at a common understanding of the fundamental nature of planning and having discussed the theory of planning, we now describe the characteristics of effective planning. In other words, how do we plan effectively, and what are the features of good plans?

PLANNING IN MANEUVER WARFARE

Proper planning is essential to the execution of maneuver warfare. Planning is an inherent and fundamental part of command and control, and commanders are the single most important factor in effective planning. Maneuver warfare demands a flexible approach that adapts planning methods to each situation, taking into account the activity being planned. It requires an approach that can apply the various aspects of planning theory as appropriate. This planning approach must encourage rather than stifle creativity. Maneuver warfare depends on insight and creativity in commanders and the planners who support them.

Planners must be always sensitive to the importance of tactical and operational tempo and ensure that planning facilitates rather than inhibits tempo. In fact, effective planning should accelerate tempo by anticipating decisions and actions. This emphasis on tempo, while a guiding principle, is not an

unbending rule. We should weigh the advantages of acting more quickly against the advantages of preparing more thoroughly.

Maneuver warfare requires plans with the proper level of detail—neither so detailed that they squash initiative nor so general that they provide insufficient direction. The proper level of detail depends on each situation and is no easy task to determine. As a rule, plans should contain only as much detail as required to provide subordinates the necessary guidance while allowing as much freedom of action as possible.

Effective maneuver warfare planning is based on the recognition that war is intrinsically uncertain and unpredictable. Effective planning seeks not to eliminate uncertainty and risk, but to provide a framework that facilitates effective and focused action in the face of uncertainty and risk. Effective planning also recognizes the limits of foresight in a complex and changeable environment like war. Effective planning does not try to impose precise order and control on the battlefield—to try to turn war into something it is not. Instead, planning should provide enough structure to facilitate necessary cooperation and direction, but not so much structure that we sacrifice flexibility, tempo, or initiative. Recognizing the proper balance in any given situation requires judgment.

The maneuver warfare approach to planning sees planning not only as a way of directing and coordinating actions but also of generating shared situational awareness and expectations, supporting the exercise of initiative, and structuring the thinking of commanders and planners. Maneuver warfare emphasizes planning as a continuous learning and adapting process rather than as a scripting process. Maneuver warfare requires the ability to extemporize—to be able to depart from the original plan to exploit fleeting opportunities—and planning importantly provides the point of departure for such adaptation in execution.

The maneuver warfare approach to planning emphasizes the importance of establishing clear objectives even as it recognizes the difficulty of doing so in a complex, uncertain, and shifting environment like war. Effective planning should generally proceed from the establishing of goals and objectives to the conceiving of broad courses of action to the detailing of the practical implementation of those courses of action. At the same time, the conceptual aspects of planning—to include establishing goals—should be responsive to the detailed requirements of execution.

The maneuver warfare approach to planning is based on the belief that in typically complex and shifting tactical and operational situations, the best approach is usually to plan in rough outline and delegate as many decisions as possible to subordinates empowered to act on their own authority.[3] In order to act appropriately, these subordinates require a thorough

understanding of the overall purpose or goal, which can only be provided by higher authority.

SITUATIONAL FACTORS

Three types of factors drive each planning effort.[4] First, there are *external factors* stemming from the environment. These include the time pressure placed on planners, the type and degree of uncertainty that planners must handle, and the instability and turbulence of the situation. Next, there are *internal factors* stemming from the availability and capabilities of the planners themselves. These include the skills and degree of experience and expertise. Internal factors also include the tools and equipment available to support the planning process. Last, there are *task-related factors* having to do with the nature of the activity being planned. Among other factors, these include the characteristics of the activity itself, the complexity of the situation, the clarity and stability of goals, and the availability of resources. Is the situation fluid or static? Is the plan a tactical plan or a technical one? Is the envisioned end state clear? Is it likely to change?

There are numerous factors to consider, most of them interrelated and some in conflict with one another. Some factors are always more important than others, and some are more important in some situations, but not in others. The following discussions are not exhaustive but give an idea of how we should take various factors into account in our planning process and in our plans.

Time pressure exerts a major influence on the type of plan we develop. It takes longer to develop detailed and integrated plans. As a result, where time is short, we might do better to develop broader, modular plans. Similarly, it takes longer to develop optimized plans; when time is short, it may be better to accept a less than optimal but workable plan.

Uncertainty is another major factor that impacts on planning and plans. Where uncertainty is high, plans should generally be broad, loosely coupled, and highly flexible. Such situations favor modular plans that are easily repaired. Conversely, where certainty is relatively high or the reasonable expectation of friction or enemy interference is low, plans can be more detailed and integrated.

The scarcity of critical resources may drive us to develop detailed and integrated plans that tend to make more efficient use of resources.

Integrated and complicated plans tend to require more expertise to develop but less expertise to execute. They are more difficult to design because of the various elements that must be coordinated. Where different planning staffs are not collocated and coordination is difficult, loosely coupled plans may be preferable.

If subordinate commanders are less experienced, we may be compelled to develop more detailed plans that provide more guidance while requiring less judgment in execution. Conversely, where subordinates are experienced, we can develop

plans that provide subordinates the latitude to adapt to circumstances.

No two situations are the same, and different situations require different planning techniques and different types of plans. That said, however, the Marine Corps' warfighting doctrine is based on a view of war as a time-competitive, interactive clash characterized by high levels of friction, uncertainty, disorder, and unpredictability. Such conditions favor simple, modular, flexible, and timely plans.

SIMPLE PLANS

Simplicity is one of the fundamental tenets of our planning philosophy. Plans should be as simple as each situation allows because in war even the simplest plans are difficult to carry out. There is an important difference between simple and simplistic—the latter referring to something that is made overly simple by ignoring the natural complications of the situation. We realize that each plan must deal with the complexity of its situation and that some situations require more complicated plans than others. However, this is not to say that a complex situation automatically requires an equally complicated plan. Some complex problems may have surprisingly simple solutions.

We prefer simple plans because they are easier to generate and comprehend. They are easier to implement and, more

importantly, to implement well—the simpler a task, the more easily we can master it. Simple plans are generally easier to modify or repair—an essential quality given the friction and disorder of war. Finally, simple plans are also usually a better starting point from which to adapt to the unforeseen.

There are several ways to simplify plans. First, we should keep the number of actions or tasks in the plan to the minimum required by the situation. This is largely a function of organization. Fewer actions simplify the problems of command and control. Too many tasks can exceed the limits of an effective span of control. We can often reduce the number of actions by grouping related actions together. By placing this group of actions under the authority of a subordinate, we can also distribute the planning load throughout the organization rather than bearing it all in one place. These grouped actions must be logically related, or we will unduly complicate the situation for the subordinate.

We can simplify by developing plans that are as broad as the situation permits. We simplify by minimizing the burden of detail, where possible leaving those details to subordinates and again distributing the planning load. For example, instead of designing the coordination of two subordinate units, we can direct the units to effect the necessary coordination locally. The key is to develop plans that are broad but not vague.

Finally, even though a situation may be complex and may require numerous actions, we should try to develop a plan that

is embodied in a simple, compelling concept that captures the essence of the situation. Sometimes the simplest plans are the most inspired. Conceptualization is no mean ability; it is a function of insight and vision. It is part of the creative element of planning and cannot be captured by following any set procedure. A compelling concept that includes the underlying intent conveys the logic of the plan in simple but powerful terms. This allows subordinates to act out of understanding and thus lessens the requirement for explicit instructions covering every eventuality.

LOOSE, MODULAR PLANS

Success in war requires coordinated effort—the cooperation of two or more elements for the accomplishment of a com- mon task. Coordination occurs in time or space or both. Examples include two units performing a passage of lines, an envelopment conducted by two units, preparatory fires shifting off an objective as an assault element closes, or a close-air strike involving suppression of enemy air defenses.

Providing for necessary coordination is one of the primary functions of planning and plans. Plans provide a mechanism for coupling those activities that must be coordinated and cannot be coordinated effectively another way. How tightly or loosely coupled the elements of a plan should be depends on a variety of factors discussed in the previous chapter. Some

activities require tighter coupling than others. Some situations permit looser coupling than others. Some parts of a plan may be tightly coupled while other parts of the same plan are loosely coupled.

For most tactical or operational situations, which tend to be characterized by friction, uncertainty, disorder, and enemy interference, we should strive to design relatively loose, modular plans. Compared to tightly coupled, integrated plans, modular plans are generally simpler to execute and control, are easier to modify, better endure the effects of friction and disruption, and provide greater latitude in execution.

Loose coupling is also an important way of achieving simplicity. Loose coupling supports simplicity by lessening the need for designed coordination measures. A modular plan allows each subordinate element to plan with some degree of independence of the others, simplifying the overall planning effort.[5]

A plan can provide for necessary coordination in several ways. The simplest and loosest way is to direct two elements to coordinate locally. Another way is to provide the mechanism for coordination—such as a control measure—but to let the elements involved effect the coordination as necessary. A third way is to provide the coordination mechanism *and* to regulate its use. Of these, the first is the most flexible, and the last is the most controlled. Situation permitting, the first is most preferable, and the last least preferable in providing subordinate units latitude to adapt to changing circumstances.

Plans should not attempt to couple actions which do not need to be coupled. As important as coordination can be, it occurs at the cost of flexibility and freedom of action. This point seems self-evident, but sometimes attempts are made to couple unrelated elements in a plan. This is usually done in an effort to achieve a degree of control of the situation that is rarely attainable nor even desirable. Instead, the goal should be to uncouple elements of the plan as much as possible consistent with the need for unity of effort. Any time we are about to establish some control measures to coordinate two or more parts of a plan, it is not a bad idea to ask ourselves: *Do these actions need to be coupled?*

As a general rule, plans with many control and coordination measures—especially restrictive measures—tend to be tightly coupled. This does not mean that to achieve loose coupling we simply eliminate control and coordination measures from plans. Such measures serve an essential purpose when properly used. Instead, this means that we conceive plans in such a way when possible that direct coordination between elements of the plan is not necessary for the success of the plan. This function of conceptual design is no simple task. It may be that some elements of the plan can support each other indirectly rather than directly, as the example of Allenby's campaign plan in 1918 showed.

Establishing loose coupling is in part a function of task organization. To organize subordinate units into self-sufficient tactical units by assigning them the necessary support

lessens the need for the centralized coordination of support. This also simplifies command and control (although possibly at the expense of the efficient use of resources).

As a very simple example of planning loose coupling, consider the coupling between a scheme of maneuver and a plan for supporting fires. A ground attack supported by scheduled fires is a tightly coupled system. The movement and fires are synchronized. Changing one necessitates changing the other. This example describes an extremely simple system of only two parts. Consider the complications in a tightly coupled tactical plan of average complexity. By comparison, a ground attack supported by on-call targets is a loosely coupled system. The two parts are asynchronous: changing the timing of one does not necessitate changing the other, although the fires can still be used to support the movement. This is not to imply that scheduled fires are bad—like other examples of tight coupling, they are sometimes necessary—but merely to illustrate how we can increase flexibility by developing loosely coupled, modular plans.

ADAPTIVE, FLEXIBLE PLANS

Planning is a way of adapting the organization to its surroundings in two ways: by designing actions in advance of the need to act and by supporting the exercise of initiative during

execution. Because of the unpredictability of war, a good plan should be flexible, allowing us to adapt quickly to a broad variety of circumstances. This obviates the need to develop explicit courses of action for an unlimited number of possible contingencies. The level of flexibility in a plan should be in direct proportion to the level of uncertainty and fluidity in the situation.

Initiative is central to maneuver warfare. We should plan with this thought firmly in mind. A good plan does not eliminate the need for initiative, but facilitates initiative. Patton's quotation at the beginning of this chapter captures this idea in describing a plan as "a datum plane from which you build as necessity directs or opportunity offers."

We should not think of a plan as an unalterable solution to a problem, but as an open architecture that allows us to pursue many possibilities. A good plan should maximize freedom of action for the future. It is a mistake to think that the goal is to develop plans and then implement them as designed. We will rarely, if ever, conduct an evolution exactly the way it was originally developed.

This emphasis on adaptability and flexibility must be tempered by an intelligent understanding of where necessary couplings exist in the plan. We do not have complete freedom to depart from the scheme without consideration. We certainly do *not* have the freedom to depart from the larger intent of a plan. We must be sensitive to ways any departures may affect the

other parts of the plan and must therefore keep others informed of our actions.

How do we design adaptive, flexible plans? First, we establish objectives that are broadly, but not vaguely, defined, objectives which provide latitude in the manner of accomplishment. Second, as we have discussed, we develop loose, modular plans. These allow subordinates to adapt without infringing on other parts of the plan. Third, we develop plans with feedback mechanisms designed to provide information about how the action is developing and to identify the need to make adjustments to the plan. We may explicitly design decision points, points in a plan of action requiring a decision about how to proceed in execution. Fourth, we should design plans of action that permit multiple options in execution. We may design specific *branches* and *sequels*, planned alternatives or follow-on phases for likely contingencies, but we should also maintain the flexibility to pursue other options that are not planned. We should not try to develop plans for every possible eventuality. We should not develop so many contingencies that we cannot prepare adequately for any of them. Fifth, we should develop plans which provide shared situational awareness and mutual expectations. A common understanding improves the ability to recognize the need to adapt and to cooperate with others while doing so. Finally, we develop orders and plans that provide a compelling logic for action that makes it easier for subordinates to exercise initiative while conforming to the higher purpose. The compelling logic for action finds expression in the commander's intent for each subordinate.

TIMELY PLANS

Timely plans are directives that are issued in a way that allows subordinates ample time to make preparations and issue their own orders. *Few factors are more important to success than giving subordinates enough time to prepare. We frequently underestimate the time required for directives to permeate through the various echelons of an organization.*

In many situations, a warning order may be useful to provide subordinates time to begin preparations for a contemplated action.[6] Moreover, because planning is an iterative process, it is often advisable to issue partial instructions as they are available rather than wait to issue a complete directive. Subordinates can then begin their own planning.

PLANNING IN TIME

Effective planning requires not only issuing timely plans but also planning in time. Planning in time has two aspects. First, it requires making effective use of the time available for planning. Second, it means configuring efforts over time to create a meaningful sequence of actions that lead economically toward the envisaged goal. It is difficult to state without exception that any one consideration is always more important than any other, but in nearly all situations, time is the critical factor. Whether

done rapidly or deliberately, all planning requires an acute awareness and judicious use of time: *all planning is time-sensitive*.

In general, planning should not occur at the expense of tempo. At the same time, if time is available and there is no advantage to acting more quickly, there can be little excuse for not taking the time to plan adequately. A company commander who spends an hour deliberately developing a detailed plan in the heat of a crisis when seconds matter is as much at fault, with respect to proper use of time, as a division commander who has days to prepare for an amphibious landing and hastily develops an ill-conceived ship-to-shore plan.

We must be constantly aware of how much time a situation allows for planning—realizing that this will usually be an estimate—and we must make the most of that available time. This means being aware of potential tradeoffs between decision planning and execution planning. In allocating planning time, we cannot take only our own planning requirements into account, but we must also consider the planning requirements of subordinates.

We must be aware of any advantages to be gained by using less than the full time available, and we must weigh such advantages in tempo against the advantages of more thorough planning. At the same time, we should recognize the moment when taking the time to consider our actions beforehand may allow us to act more quickly later. We must recognize that

situations are dynamic rather than static—the situation continues to change *while we plan for it*, and the longer we take to plan, the more the situation will have changed. Finally, we should know when it is time to stop planning and to begin executing. We should recognize that there may be times when planning—or additional planning—is not justified.

It is a common tendency to project plans too far into an uncertain future. The quotation from Moltke at the beginning of this chapter, that no plan survives contact with the enemy, is well known. Many plans do not last even that long. Because we cannot anticipate the unforeseeable, we tend to assume the future will be a linear projection of the present and recent past, and we frequently underestimate the magnitude of changes in the pattern of events over time. Consequently, our assumptions about the future, especially the distant future, are often greatly in error. Therefore, effective planners do not try to plan too far into the future. They maintain nearer time horizons for commitment planning and spend relatively more time doing contingency or orientation planning.

Planning in time means having a realistic appreciation for time-distance factors. It means understanding how long it takes to initiate certain actions and not trying to plan actions that are already outside of our window of opportunity.

PLANNING AS SHAPING

The discussion of planning in time leads us to a related concept—planning as shaping, the idea of conceiving and taking actions now with an eye toward future advantage. Planning is a primary means by which we give advantageous shape to the course of events over time. Shaping the course of events means exploiting and cultivating opportunities that arise naturally as well as actively creating and developing advantages. Ideally, when the decisive moment arrives, the issue has already been resolved. Our actions leading to this point have so shaped the conditions that the result is a matter of course. We have shaped the action decisively to our advantage. In this respect, a commander tries not so much to precisely direct the actions of subordinates, but instead to provide subordinates with every possible advantage over the opponent.

We should try to shape events in a way that allows us several alternatives and avoids irreversible commitments.[7] The object of planning in this regard is to provide the maximum degree of freedom for future action. In this way, we make it more difficult for the enemy to anticipate and counter us. We want to ensure that when the moment of encounter arrives, we have not narrowed ourselves to only one course of action.

Examples of shaping include planning a deception to influence the enemy's expectations; canalizing, delaying, or blocking the movement of enemy forces; devising a program to strip the enemy of a particular critical capability; and drawing an enemy force into unfavorable terrain.

Effective shaping requires an appreciation for appropriate time horizons, whether those horizons are measured in the days and weeks of senior commanders or the minutes, hours, and days of tactical commanders. Planning horizons are situation-dependent, although generally the higher the echelon, the longer the horizon, and the longer the horizon, the less specific we can be in our plans. Usually we must be able to plan with several different horizons simultaneously and to plan in different modes for each. We can think in terms of a *commitment horizon* within which we are confident enough of our ability to forecast events that we can commit to a particular plan. Beyond that horizon, we can think of a *contingency horizon* within which we can plan for several different contingencies without committing to any one. Beyond the contingency horizon, we realize the situation is too uncertain to plan for specific contingencies, and we instead perform orientation planning that allows us to respond quickly and flexibly to a broad variety of circumstances. (See figure 6.)

To use planning to shape the action does not mean to establish a detailed timetable of events far into the future. We have already concluded that in war we cannot expect to shape the conditions of war with any sort of precision. Rather, we

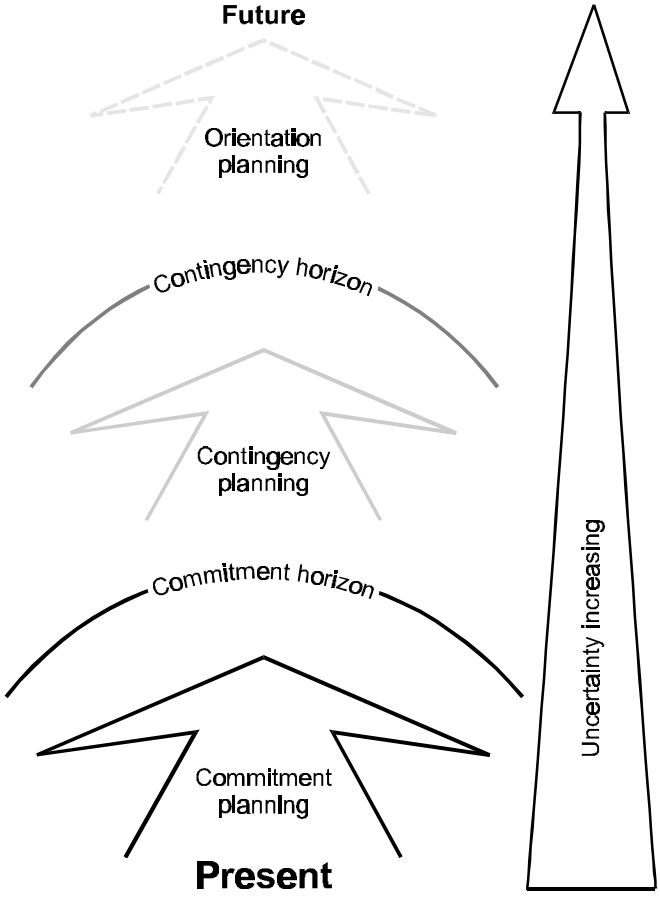


Figure 6. Planning horizons.

attempt to shape the general conditions of war—we try to achieve a certain measure of ordered disorder. The further ahead we think, the more general must be our designs. As events approach, we can try to influence them more positively, but we should realize that we can rarely orchestrate them with any meaningful degree of precision.

Shaping events over time requires both forward and reverse planning—thinking forward to the next feasible step, and the next after that, while also thinking backward from the desired future. However, we must keep in mind that the envisaged end state is an aiming point for planning purposes and not necessarily a permanent goal.

CONTINUOUS, EVOLUTIONARY PLANNING

Planning is a continuous process involving the ongoing adjustment of means and ends. We should also view planning as an evolutionary process involving continuous adjustment and improvement. We can think of planning as solution-by-evolution rather than solution-by-engineering. We should generally not view planning as trying to solve a problem in one iteration because most military problems are too complex to be solved that way. In many cases, it is more advisable to find a workable solution quickly and improve the solution as time permits. What matters most is not generating the best possible plan but achieving the best possible result. In many cases, a reasonable

course of action executed quickly and aggressively is better than an optimal course executed too late. We should generally view planning as evolving continuously and iteratively *toward* the best executable solution that cir- cumstances allow until the process is interrupted by the imperative to act. Effective planning continuously refines and deepens the plan as time permits.

Likewise, we should see each plan as an evolving rather than a static document. Like planning, plans should be dynamic; a static plan is of no value to an adaptive organization in a fluid situation.[8]

Because militaries are hierarchical organizations, planning is generally seen as proceeding sequentially from the top of the organization toward the bottom. This is true to some extent as orders from above provide the basis for planning at each level. However, an organization characterized by continuous planning must plan in parallel—all echelons planning at the same time. Continuous planning requires continuous coordination laterally and between echelons as plans are adjusted and refined over time.

PARTICIPATORY PLANNING

Similarly, we should see planning as fundamentally a participatory process.[9] We should always keep in mind that the main benefits of planning derive not from consuming the pro-

ducts—that is, plans—but from engaging in their production. In other words, as valuable as plans may be, the process of planning matters more because of the learning and shared understanding that result when planning is done properly. Consequently, "planning cannot be done *to* or *for* an organization; it must be done *by* it."[10] As a rule, any commander affected by a plan should have the opportunity to contribute to it.

Effective planners do not so much plan for others as they facilitate others' planning for themselves by providing the necessary guidance, context, and resources. Planning should be decentralized as much as the situation permits. Those responsible for executing should have the freedom to develop their own plans. The reason is not only that they are closest to the problem but also that they will naturally feel a greater responsibility for the success of a plan of their own creation. This is not to say that the senior commander should not issue centralized guidance. In fact, the senior commander must provide an overall plan of action that harmonizes the actions of all the elements of the force, but the increasingly detailed elements of design should generally be left to successively lower echelons.

Participatory planning requires open sharing of information throughout the organization. It cannot be done in isolation.

COMMANDERS AND PLANNERS

Effective planning absolutely requires direct involvement by the commander. Planning is a fundamental responsibility of command. In any organization, the commander should be the chief planner. Commanders who do not participate in planning do not benefit from the learning that takes place.

Commanders must not merely participate in planning but must drive the process. They do this in a variety of ways. They make sure that their assumptions and estimates of the situation are clearly understood. They provide clear, forceful planning guidance to their staff and subordinates. As the responsible authority and the most experienced member of the organization, the commander should especially be involved in the conceptual aspects of decision planning.

Commanders should manage the planning effort to ensure the correct harmony among the various aspects of planning discussed in chapter 2. They ensure that the planning effort is sensitive to time constraints, directing the transition in tempo between deliberate and rapid planning. They establish appropriate planning horizons and determine the appropriate planning mode—commitment, contingency, or orientation. They establish the appropriate level of specificity in plans, guarding against planning in too much detail. They should also promote loose, modular plans that allow subordinates broad latitude in execution.

By their example, commanders should establish an environment in which planning is a valued and productive activity. They should ensure that planning does not become merely the rote application of procedure but retains its creative elements. Commanders should ensure that any planning procedures adopted facilitate thinking about the future rather than become a substitute for thinking about the future. Commanders should evaluate plans not on how much time and energy went into the preparation, but on whether they provide the basis for effective action.

Commanders may or may not participate much in the actual drafting of orders, but they are responsible for drafting their intent. Field Marshal Sir William Slim wrote that the intent phrase of the mission statement "is always the most important because it states—or it should—just what the commander intends to achieve. It is the one overriding expression of will by which everything in the order and every action by every commander and soldier in the army must be dominated. It should, therefore, be worded by the commander himself."[11]

Commanders may be assisted in planning by a staff and sometimes by a designated planning staff. A good planning staff will help to keep the commander oriented on the future and will bring up various planning issues requiring the commander's attention. Planners must be taken into the commander's council, or they cannot understand the requirements and constraints under which commanders must operate and therefore cannot support them.[12]

Each commander will employ the staff differently based on individual aptitudes and temperaments, both the command- er's and individual staff members'. We typically think of a staff as providing analytical support. A planning staff will be deeply involved in execution planning, translating the commander's concept into a directive. This is largely an analytical process that can be formalized to a certain extent. A commander will frequently also use the analytical skills of the staff to support decision planning by analyzing some specific issue or problem to provide advice on feasibility, costs, requirements, and so on. Finally, a commander will frequently use the analytical skills of the staff to scrutinize a potential course of action. This not only means making recommendations as to the feasibility or supportability of the concept, but also identifying potential problems, decision points, and con- tingencies.[13]

A good commander will also tap the intuitive skills resident in the staff. The degree of participation is based on the abilities of selected staff members and their individual relationships with the commander. Commanders may use members of the staff to help brainstorm a course of action or to help commanders understand their own thought processes. Because of the uncertainty of war, many times a commander can initially provide only the vaguest of ideas and intentions. In such instances, the staff can act as a sounding board for potential concepts and estimates or can help to draw out and articulate the commander's ideas. In many cases, the commander will also use the staff to recommend alternative courses of action for consideration.[14]

The planning staff should not be an isolated section with sole authority and responsibility for planning. The more isolated and autonomous a planning staff, the less effective it will be.[15] Planners should be closely linked with executors—ideally, they should be the same people—so that they can stay in touch with the constraints and realities of execution. Those who understand a plan best are those who developed it. The only way that an executor can understand a plan as well as a planner is to have participated in the planning.

PLANS AND ORDERS

Commanders issue orders and plans to subordinates to give effect to their decisions. Except in extreme cases, all directives to a unit should be issued to the commander of that unit. Likewise, orders and instructions to a unit should emanate from its immediate superior commander. By these means, authority and responsibility are fixed, and the channels of command are established. We should bypass echelons of command only by exception, and in such cases both the issuing and receiving commanders should notify intermediates of the new instructions as soon as possible.

Directives should not trespass on the province of subordinates. Directives should convey the minimum amount of

instruction necessary for effective execution. Instructions that repeat matters of training or standard procedure weaken a directive, which should generally contain only information particular to the action being ordered.

While planning can be a valuable learning process for planners, plans and orders exist for those who receive and execute them rather than those who write them. Directives must be written with an appreciation for the practical problems of execution. They must facilitate rather than complicate action. They should not be so complex that they become an impediment to comprehension. For example, orders generally should not include instructions for more than a few likely contingencies. Above all, directives must be adapted to the circumstances under which they will be received and executed.

Directives should be as clear, simple, and concise as each situation permits. Elaborateness and extreme detail are not generally characteristics of effective plans and orders. The more urgent the situation, the greater the need for brevity and simplicity. Where possible, we should use oral orders that are communicated directly between principals. Short sentences are easily understood. Superfluous, trite, or trivial phrases weaken an order and create ambiguity. To aid understanding, we should make widespread use of map overlays, graphics, and other visual techniques, as these tend to improve and expedite understanding.

Directives should contain a statement of the intent behind the ordered actions to ensure the intelligent cooperation and initiative of subordinates. This statement of intent should be brief, unambiguous, and compelling. It should be brief enough that a subordinate can keep it clearly in mind during the disorder and stress of action without having to refer to written instructions.

Orders should instruct only so far as conditions can reasonably be foreseen. Orders which attempt to arrange details too far in advance usually have to be countermanded. Such changes tax the communications system, cause confusion and misunderstanding, impose needless hardships on personnel, and harm morale.

Standard order formats expedite understanding, prevent omissions, and facilitate ready reference. However, content, clarity, and conciseness are more important than format. Slavishly following a prescribed format can result in rigid form and unimaginative content not consistent with the unique requirements of each situation.

In general, orders should not merely repeat information and instructions from higher authority; rather, orders at each echelon should adapt the scope of information and the level of detail to the particular situation.

CONCLUSION

Our approach to planning recognizes and accepts the complex, uncertain, disorderly, and time-competitive nature of war and seeks to provide commanders with the best means to win under those conditions. We recognize the limits of design under such conditions. We recognize that planning cannot impose order and control on the battlefield, and it should not try. At the same time, we recognize the importance of planning in preparing us to act in a purposeful, prepared way in this environment. We seek to achieve a balance between providing the necessary focus, direction, and coordination and allowing the necessary latitude for initiative and adaptation. In this respect, we recognize that the commander is the single most impor- tant factor in effective planning. The commander disciplines the planning process so that it is sensitive to time, planning horizons, level of detail, and simplicity. Under the commander's direction and guidance, the process shifts among the various planning modes, types, and levels, seeking to harmonize the factors that define the planning environment. The commander also disciplines the product to ensure that the resulting plan is relevant to the moment and suitable to subordinates.

Our objective is to plan in a way that maximizes tempo, flexibility, and adaptability in action. We recognize that few plans will ever be carried out the way they are designed and that, in fact, they are not meant to be. We realize that the measure of a good plan is not whether it is executed as intended, but whether it provides the basis for effective action.

The ultimate measure of effective planning is the answer to the following question: Can we act faster and more effectively than the enemy?

The Nature of Planning

1. Robert Debs Heinl, Jr., Col, USMC, Retired, *Dictionary of Military and Naval Quotations* (Annapolis, MD: United States Naval Institute, 1978) p. 239.

2. Ibid., p. 104.

3. Herbert A. Simon, *The Sciences of the Artificial* (Cambridge, MA: MIT Press, 1981) and Russell L. Ackoff, *A Concept of Corporate Planning* (New York: Wiley-Interscience, 1970) p. 1.

4. Simon, p. 185.

5. Donald N. Michael, *On Learning to Plan & Planning to Learn* (San Francisco: Jossey-Bass Publishers, 1973).

6. Ackoff, *A Concept of Corporate Planning*, p. 5.

7. Gary Klein and Tom Miller, *Distributed Planning Teams*, Draft Final Report for Naval Research Laboratory (Fairborn, OH: Klein Associates, 1996) p. 5.

8. **Force planning**: "Planning associated with the creation and maintenance of military capabilities. It is primarily the responsibility of the Military Departments and Services and is conducted under the administrative control that runs from the Secretary of Defense to the Military Departments and Services." (Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms*)

9. **Operation annexes**: "Those amplifying instructions which are of such a nature, or are so voluminous or technical, as to make their inclusion in the body of the plan or order undesirable." (Joint Pub 1-02)

10. As used throughout this publication, the term "planner" refers to any person, including commanders, involved in planning and not only to members of a designated planning staff.

11. Lloyd R. Amey, *Corporate Planning: A Systems View* (New York: Praeger, 1986) p. 18.

12. MCDP 6, *Command and Control* (October 1996) p. 46.

13. Klein and Miller, pp. 5–6. See also Henry Mintzberg, *The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, Planners* (New York: The Free Press, 1994) pp. 333–361.

14. The types of plans are defined in Joint Pub 1-02 and described in Joint Pub 5-0, *Doctrine for Planning Joint Operations*, chapter 1, section 13 (April 1995).

15. **Directive**: "1. A military communication in which policy is established or a specific action is ordered. 2. A plan issued with a view to putting it into effect when so directed, or in the event that a stated contingency arises. 3. Broadly speaking, any communication which initiates or governs action, conduct, or procedure." (Joint Pub 1-02)

16. Carl von Clausewitz, *On War*, trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984) p. 199.

17. Ackoff, *A Concept of Corporate Planning*, p. 1.

18. Mintzberg, chapters 4 and 5.

19. For example, see Richard E. Hayes, *Symposium of C^2 Research and Decision Aids*, for the Naval Post Graduate School Technology Panel for C^3, Joint Directors for Laboratories, and National Defense University (Vienna, VA: Evidence Based Research, Inc. 1994). This study of the U.S. Army showed that division and brigade plans lasted only about 65 percent as long as they were intended to last and that only about 58 percent of the elements of a plan survived for the intended duration of the plan.

20. Hasan Ozbekhan, "Toward a General Theory of Planning" *Prospectives of Planning*, ed., Erich Jantsch (Paris: Organisation for Economic Co-operation and Development, 1969) p. 114.

Planning Theory

1. Gen George S. Patton, Jr., *War as I Knew It* (Boston: Houghton Mifflin Company, 1947) p. 354.

2. *Battle Doctrine for Front Line Leaders* (Quantico, Va: Marine Corps Development and Education Command, Education

Center, 1981) p. 1. This publication was originally written and published as a training guide by the 3d Marine Division, Fleet Marine Force, under the command of Gen A. A. Vandegrift during World War II.

3. Our use of the term "planning process" provides a conceptual model for those activities which occur during the formulation of a plan. This model is not intended to replace other formal, prescribed methodologies such as the Joint Operation Planning and Execution System (JOPES) process or the rapid response planning process used by Marine expeditionary unit (special operations capable) staffs.

4. Ackoff, *A Concept of Corporate Planning*, p. 24.

5. Gary Klein, John Schmitt, Mike McCloskey, Jennifer Heaton, Dave Klinger, and Steve Wolf, *A Decision-Centered Study of the Regimental Command Post* (Fairborn, OH: Klein Associates, 1996). "With regard to critiquing a plan, we rarely saw this occur as a separate step in the planning cycle. We expected that once a plan was completed it would be subjected to a critical review. Instead, in the planning sessions we observed, the critiquing was embedded within the planning process. . . .

"For purposes of efficiency, it makes good sense to do the critiquing during the plan development. If someone has a concern, better to voice it at the time rather than wait until afterwards (particularly in a setting where interruptions are frequent). Furthermore, once a plan is completed it is difficult for the planning team to turn around and raise serious criticisms. If there is a need to critique a plan after it is developed, perhaps the most effective strategy is to bring in an experienced officer who was not part of the planning team, as an outside perspective." p. 30.

6. John R. Boyd, "Destruction and Creation," unpublished paper, 3 September 1976. See also Mintzberg, pp. 298–321 and 324–333; Gary A. Klein, "Strategies of Decision Making," *Military Review* (May 1989) pp. 56–64; and Maj John F. Schmitt, "How We Decide," *Marine Corps Gazette* (October 1995) pp. 16–20.

7. Our use of "functional planning" should not be confused with the definition of a "functional plan" provided in Joint Pubs 5-0 and 1-02. We are not describing a specific type of plan but rather a conceptual level within the planning hierarchy. In addition, the present definition in Joint Pub 1-02 defines functional plans as involving "the conduct of military operations in a peacetime or permissive environment," which limits functional plans to noncombat operations. In contrast, our discussion of functional planning applies across the spectrum of conflict. An updated definition of functional plans is being developed for the next edition of Joint Pub 1-02 which will expand the usage of functional plans within other operating environments (combat as well as peacetime or permissive).

8. Ackoff, *A Concept of Corporate Planning*, pp. 16–17.

9. **Execution planning**: "The phase of the Joint Operation Planning and Execution System crisis action planning process that provides for the translation of an approved course of action into an executable plan of action through the preparation of a complete operation plan or operation order. Execution planning is detailed planning for the commitment of specified forces and resources. During crisis action planning, an approved operation plan or other National Command Authorities-approved course of action is adjusted, refined, and translated into an operation order. Execution planning can proceed on the basis of deliberate planning, or it can take place in the absence of prior planning." (Joint Pub 1-02)

10. As used here, the terms "deliberate and rapid planning" refer broadly to planning considerations based on available time and not to any specific phase of the Joint Operation Planning and Execution System.

Deliberate planning: "A planning process for the deployment and employment of apportioned forces and resources that occurs in response to a hypothetical situation. Deliberate planners rely heavily on assumptions regarding the circumstances that will exist when the plan is executed." (Joint Pub 1-02)

Rapid planning: "The time-sensitive planning for the deployment, employment, and sustainment of assigned and allocated forces and resources that occurs in response to a situation that may result in actual military operations." (Joint Pub 1-02) (Also called crisis action planning.)

11. Dietrich Dörner, *The Logic of Failure: Why Things Go Wrong and What We Can Do to Make Them Right*, trans. by Rita and Robert Kimber (New York: Metropolitan Books, 1996) pp. 155–156.

12. Dörner, p. 155.

13. Ackoff, *A Concept of Corporate Planning*, p. 6; Klein and Miller, p. 7.

14. Dörner, p. 50.

15. Ibid., p. 70.

16. Leon Reinharth, H. Jack Shapiro, and Ernest A. Kallman, *The Practice of Planning: Strategic, Administrative, and Operational* (New York: Van Nostrand Reinhold Co., 1981) p. 18.

17. Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (New York: Basic Books, 1984) especially chapter 3.

18. Klein and Miller, p. 9.

19. Ibid., p. 6.

20. General Sir Archibald Wavell, *Allenby: A Study in Greatness; The Biography of Field-Marshal Viscount Allenby of Megiddo and Felixstowe, G.C.B., G.C.M.B.* (New York: Oxford University Press, 1941) pp. 272–289.

Planning Effectively

1. Heinl, p. 239.

2. Patton, p. 399.

3. Dörner, p. 161.

4. Klein and Miller, pp. 15–18.

5. Simon, p. 190.

6. **Warning order**: "A preliminary notice of an order or action which is to follow." (Joint Pub 1-02)

7. Simon, p. 181.

8. Reinharth, Shapiro, and Kallman, p. 5.

9. Russell L. Ackoff, *Redesigning the Future: A Systems Approach to Societal Problems* (New York: John Wiley and Sons, 1974) p. 28.

10. Ackoff, *Redesigning the Future: A Systems Approach to Societal Problems*, p. 28.

11. Field Marshal Sir William Slim, *Defeat Into Victory* (London: Cassell and Co. Ltd., 1956) p. 211.

12. Ackoff, *A Concept of Corporate Planning*, p. 133.

13. Mintzberg, pp. 368–370.

14. Ibid., p. 364.

15. Ackoff, *A Concept of Corporate Planning*, p. 129.